

CLAIMS

What is claimed is:

1. A printing apparatus comprising:
a print medium transport system;
a translucent roller; and
an ultraviolet light source for curing an image on a print medium.
2. The apparatus of claim 1, wherein the ultraviolet light source is disposed in the translucent roller.
3. The apparatus of claim 1, further comprising a pressure roller arranged adjacent to the translucent roller for imparting pressure to a page passing between the translucent roller and the pressure roller.
4. The apparatus of claim 3, wherein the pressure roller is translucent.
5. The apparatus of claim 1, wherein the translucent roller comprises borosilicate glass.
6. The apparatus of claim 1, further comprising an ultraviolet light-curable toner supply.
7. The apparatus of claim 6, wherein the ultraviolet light-curable toner supply comprises:
an ultraviolet light curable resin;
toner particles suspended in the resin; and
a charge director added to the resin.
8. The apparatus of claim 7, further comprising a surfactant to facilitate the suspension of the toner particles in the resin.

9. The apparatus of claim 7, wherein the charge director comprises quaternary ammonium salts.

10. The apparatus of claim 6, further comprising:
at least one photosensitive drum;
at least one laser optic system for tracing an image on the at least one photosensitive drum; and wherein the ultraviolet light-curable toner supply is electrically charged opposite of the image traced on the at least one photosensitive drum.

11. A toner fusing apparatus comprising:
at least one translucent roller in a laser printer, the at least one translucent roller comprising an ultraviolet light source disposed therein.

12. The apparatus of claim 11, further comprising a pressure roller arranged adjacent to the at least one translucent roller for imparting pressure to a printing medium passing therebetween.

13. A method of printing an image on a print medium by the electrophotography process comprising the step of:

fusing a UV sensitive toner suspension to the print medium by applying UV light to the toner, the fusing occurring separate from transfer of the UV sensitive toner to the print medium.

14. The method of claim 12, wherein the step of applying UV light to the toner comprises passing UV light through at least a portion of a borosilicate roller.

15. The method of claim 12, further comprising the steps of:
cleaning at least one organic photoconductive (OPC) drum;
conditioning the at least one OPC drum to accept an image from at least one laser;
writing a latent image on the at least one drum with a laser beam;
developing the latent image into a toner image by attracting toner to the at least one

OPC drum; and

transferring the toner to the page.

16. A method of fusing an image to a print medium comprising the steps of:
transferring toner from at least one photoconductive drum of a laser printer to the
print medium; and
separately fusing the toner to the print medium by the application of UV light to the
toner.

17. The method of claim 16, wherein the method is accomplished by a
conventional laser printing apparatus with the addition of a UV fusing station.

18. The method of claim 17, wherein the conventional laser printing apparatus
does not comprise a heating element.

19. The method of claim 16, further comprising the step of providing a translucent
roller, wherein the application of UV light to the toner is accomplished via the translucent
roller.

20. A borosilicate cylinder comprising a UV light source therein.

21. The cylinder of claim 20, further comprising a laser printer integrated
therewith.

22. A chemical compound comprising:
an ultraviolet light curable resin;
toner particles suspended in the resin; and
a charge director.

23. The compound of claim 22, further comprising a surfactant to facilitate the
suspension of the toner particles in the resin.

24. The compound of claim 23, wherein the surfactant comprises Nonoxinal™.
25. The compound of claim 22, wherein the charge director comprises quaternary ammonium salts.
26. The compound of claim 22, wherein the compound is inserted into a receptacle of a laser printing apparatus.
27. The compound of claim 22, wherein the compound is used with a liquid electro-photography printing apparatus.
28. A printing apparatus comprising:
a toner transfer system for transferring toner to a print medium; and
a UV light station separate from the toner transfer system for fusing the toner to the print medium by the application of UV light to the toner.
29. The printing apparatus of claim 28, wherein the UV light station comprises a borosilicate cylinder with a UV light source disposed therein.
30. The printing apparatus of claim 29, further comprising a UV translucent, compliant elastomer coating disposed on the borosilicate cylinder for enhancing gloss fusing.
31. The printing apparatus of claim 30, wherein the elastomer coating is silicon rubber.